



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**REGION II
290 BROADWAY
NEW YORK, NEW YORK 10007-1866**

October 2, 2002

Robert A. Lonergan, Vice President and General Counsel
Rohm & Haas Company
100 Independence Mall West
Philadelphia, PA 19106-2399

Re: Agreement for Berry's Creek Study SOW

Dear Bob:

Enclosed are the final executed Agreement and Statement of Work for Berry's Creek. The Special Account has been set up on our end, so you may make the payment any time between now and the due date.

To reiterate, it is our understanding that Rohm & Haas/Morton will not represent to other parties that EPA has agreed to pursue a non-Superfund approach for any future work at Berry's Creek. And EPA has agreed to insert the following language into any information request letters that it sends:

Please be advised that EPA has been asked by one of the stakeholders with an interest in the Berry's Creek watershed to consider suggestions for additional approaches to protecting the environment and facilitating the use of environmental resources in that watershed beyond those traditionally used in connection with the Superfund program. The Superfund program is expected to be part of any approach to remediation and restoration of Berry's Creek; however, we are of course willing to consider any suggestions from private parties, state and/or local governments concerning additional alternatives. The information gathered pursuant to this information request will (except to the extent it may include confidential information or Privacy Act information) be available to any interested party for review.

451546



Thanks again for your efforts in this matter.

Sincerely,

A handwritten signature in cursive script that reads "Clay Monroe".

Clay Monroe
Assistant Regional Counsel

cc: Margaret L. Bazany, Esq.
Seth Ausubel ✓

**AGREEMENT
BETWEEN
THE U.S. ENVIRONMENTAL PROTECTION AGENCY
AND
MORTON INTERNATIONAL, INC.
FOR
BERRY'S CREEK STUDY AREA,
BERGEN COUNTY, NEW JERSEY**

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This Agreement is entered into between and among the United States Environmental Protection Agency ("EPA") and Morton International, Inc. ("Morton") and sets forth the parties' agreement with respect to the development of a work plan for a study of the Berry's Creek watershed and environs, principally in Bergen County, New Jersey (hereinafter referred to as the "Berry's Creek Study"). The objectives of the Berry's Creek Study include: identification of the nature and extent of hazardous substance contamination in Berry's Creek, including the sediments, soils, groundwater and surface water; and any human and ecological risks posed thereby; identification of the existing and potential future ecological values of the area; and evaluation of options for addressing human health or ecological risks associated with anticipated future uses of the area that may be identified by responsible land use planning authorities, such as redevelopment, greenspace preservation, restoration and protection of wetlands, and/or recreational uses.

EPA will develop a work plan for the performance of the Berry's Creek Study ("Work Plan") and has prepared a Statement of Work ("SOW") for the Work Plan. EPA provided a draft of the SOW to Morton and Morton reviewed that draft prior to entering into this Agreement. A copy of the agreed SOW is attached hereto.

Morton's participation in this Agreement shall not be construed as an admission of liability or of any factual matter set forth herein or in the SOW.

Therefore, in consideration of the mutual covenants set out herein, the parties stipulate and agree as follows:

1. Morton agrees to pay to EPA the sum of \$225,000 to be used for EPA's development of the Work Plan. Morton shall make such payment within ten calendar days of the final execution of this Agreement according the procedures set forth in Paragraph 3, below.

Work Plan. Any funds in the Special Account unexpended by EPA will be returned to Morton within 30 days of final EPA approval of the Work Plan.

3. Morton shall make payment via Electronic Funds Transfer to the Special Account (instructions to be provided).

4. EPA will develop the Work Plan in accordance with the final SOW.

5. As noted in the SOW, EPA will consult with Morton during the development of the Work Plan. At approximately the mid-point of development of the Work Plan, EPA will meet with Morton to discuss progress on, and the direction of, the Work Plan. Upon completion of a draft Work Plan, EPA will provide Morton with a period of four weeks for review and comment. EPA will consider any comments made by Morton on the draft Work Plan when it prepares the final Work Plan. EPA will provide Morton with a copy of the final Work Plan.

6. EPA is the final decision-making authority regarding development of the Work Plan.

U.S. ENVIRONMENTAL PROTECTION AGENCY

By:




William J. Muszynski, P.E.
Deputy Regional Administrator

Date:

9/30/02

MORTON INTERNATIONAL, INC.

By:

 *WLB*

Robert A. Lonergan, Vice President and
General Counsel

Date:

Sept 30, 2002

Statement of Work
Technical Assistance for Development of a Work Plan for the
Berry's Creek Study Area, Bergen County, New Jersey

Site

Berry's Creek Study Area.

Introduction

EPA requires technical assistance for the development of a Work Plan for investigations of the Berry's Creek Study Area, located primarily in Bergen County, New Jersey. The Work Plan shall be developed and conducted consistent with the Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final, EPA/540/G-89/004, and any future editions ("RI/FS Guidance"); and all applicable provisions of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601 et seq. (CERCLA); and the National Oil and Hazardous Substances Pollution Contingency Plan ("National Contingency Plan" or "NCP"), 40 C.F.R. Part 300, and all amendments thereto. Morton International, Inc. ("Morton") has provided funding to EPA for development of a Work Plan for the Berry's Creek Study ("Study").

Study Area Description

The Berry's Creek Study Area ("Study Area") is the water body known as Berry's Creek, including the Berry's Creek Canal and the natural course of Berry's Creek; and all water bodies tributary to Berry's Creek, from its headwaters to the Hackensack River; and wetlands that are hydrologically connected to Berry's Creek and/or its tributaries. Additionally, the Study Area includes upland properties in the Berry's Creek watershed. Tidal portions of the Hackensack River and adjacent areas will also be studied, as necessary, using an iterative investigative approach, to evaluate the ecological relationships and exchanges of contamination between these areas and the Berry's Creek watershed.

A number of facilities contiguous with or located near the Study Area (hereinafter "nearby sites") have or may have released contamination to the Study Area, and some may be continuing sources of contamination. These facilities lie within portions of the Boroughs of Carlstadt, Wood-Ridge, Rutherford, East Rutherford, Moonachie, Hasbrouck Heights, Little Ferry, Lyndhurst, and Teterboro, Bergen County, New Jersey. They include three National Priorities List (NPL) sites (the Ventron/Velsicol Superfund Site, in Carlstadt and Wood-Ridge, New Jersey [NJD980529879]; the Universal Oil Products Superfund Site, in East Rutherford, New Jersey [NJD002005106]; and the Scientific Chemical Processing Superfund Site, in Carlstadt, New Jersey [NJD070565403]); as well as other CERCLA and non-CERCLA sites, such as Arsynco, Cosan Chemical, Diamond Shamrock/Henkel, and Randolph Products, in Carlstadt; and Becton-Dickinson and Company, in East Rutherford. Many other industrial facilities, sites, and properties are located within the watershed (e.g. chemical manufacturing, truck and auto repair, petroleum storage, casting, compounding, laminating, plating, printing, and other categories). In addition, releases may have occurred or may be occurring from solid waste landfills, urban storm

water runoff, and other public facilities. Several municipal publicly owned treatment works (POTWs) formerly discharged to Berry's Creek.

The available information indicates that hazardous substances released from several or all of the nearby sites, and/or entering the Study Area from other sources, are intermixed in the surface water, groundwater, sediments and soils of the Study Area. These substances include mercury and other metals, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), other semi-volatile organic compounds, and other chemicals. The Berry's Creek Study Area Preliminary List of Contaminants of Potential Concern (Attachment A) constitutes EPA's preliminary identification of contaminants of potential concern for the Study Area.

Purpose and Approach

The purpose of this SOW is to describe the requirements for developing a Work Plan for the Berry's Creek Study.

The purposes of the Study include identification of the nature and extent of hazardous substance contamination in the Berry's Creek Study Area, including the sediments, soils, groundwater and surface water, and any human and ecological risks posed thereby; identification of the existing and potential future ecological values of the area; and evaluation of options for addressing human health or ecological risks associated with anticipated future uses of the area that may be identified by responsible land use planning authorities, such as redevelopment, greenspace preservation, restoration and protection of wetlands, and/or recreational uses.

EPA intends to develop a watershed-based mass balance approach for the Study. Because of the nature of the Study Area as part of an estuary, the Study must evaluate the transport, transformation, fate, bioaccumulation and toxicity of contaminants within the Study Area. The Study must be of sufficient scope to evaluate contaminant exchanges between the Study Area and adjacent uplands (from point and non-point sources), atmosphere, and downstream water bodies. It is expected that much of this information will be obtained by coordination of the Berry's Creek Study with other studies mentioned below. The Study must address the impacts on the Study Area, its biota, and humans using its resources, of continuing contamination from these external sources relative to contamination already present in the Study Area. It must evaluate sediment deposition and mobilization, including the effects of meteorological and physical forces such as flooding, which may resuspend and redistribute contamination. It must evaluate seasonal and inter-annual variability in physical, meteorological, and biotic conditions. It must evaluate chemical conditions which affect contaminant bioavailability, such as rates of mercury methylation and demethylation, redox conditions, simultaneously extracted metal/acid volatile sulfide (SEM/AVS), organic carbon content in water and sediments, etc. Human health and ecological risks due to contamination must be assessed and predicted under various future scenarios to evaluate remedial alternatives. The potential for contaminant releases (remobilization) and/or increased bioavailability as a result of remedial construction must be assessed, as well as the potential for recontamination following remediation.

A primary focus of the Study will be to evaluate areas for potential early remedial action.

EPA will conduct mathematical modeling work under the Study. EPA anticipates the development of a mathematical modeling framework for the Study. Data collection programs will be conducted to support model calibration. EPA expects that models for the New York-New Jersey Harbor Estuary, being used and/or developed under the New York-New Jersey Harbor Estuary Program's Contaminant Assessment and Reduction Program (CARP), will be applicable for the framework to be developed for Berry's Creek. The use of these models is expected to be beneficial for the Study and shall be considered in Work Plan development.

The Berry's Creek Study should be conducted in consideration of on-going and planned Remedial Investigation/Feasibility Study (RI/FS) or other work at hazardous waste and other contaminated sites that are contiguous with the Study Area, to assure that the exchange of contaminants with these sites is properly evaluated. To the degree possible, the Study should be conducted in coordination with studies underway or being planned by EPA addressing the Passaic River Study Area.

Due to the complexity of the Study Area, EPA anticipates that the final deliverable Study Work Plan described in this Statement of Work (SOW) will be subject to further iterations as the Work Plan is implemented.

Tasks to be Performed

The Berry's Creek Study Work Plan shall consist of a detailed Study Area background and physical description; initial data evaluation; scoping, description, and schedule of the tasks to be conducted; and estimated costs. The Work Plan will not contain completed components that are inherently the responsibility of the party(ies) performing the Study, such as a Health and Safety Plan (HASP) and a Quality Assurance Project Plan (QAPP). However, the Work Plan shall include a scoping of the QAPP as described below. The Study schedule shall allow for completion of the HASP.

A schedule of deliverables can be found following the task descriptions.

1. Technical Assistance Work Plan.

The contractor shall submit a draft Technical Assistance Work Plan, describing the tasks, schedule, personnel and costs for completion of the work described in this SOW, within three weeks after the start of work. It is expected that a draft final Technical Assistance Work Plan will be submitted to EPA within six weeks after the start of work, in accordance with EPA's written comments on the draft Technical Assistance Work Plan. An initial scoping meeting is to be held at the EPA Region 2 office in New York within two weeks after the start of work. The contractor will contact EPA to schedule the meeting within five days of the start of work. EPA anticipates that four contractor personnel will attend the meeting. The contractor shall prepare materials for the initial scoping meeting sufficient to outline the work to be performed, and describe key issues relevant to completing the work. The contractor shall prepare meeting minutes for review by EPA, which shall include the contractor's understanding of all agreements reached and any issues requiring resolution. The contractor will submit a final Technical

Assistance Work Plan at EPA's request in accordance with EPA's written comments on the draft final Technical Assistance Work Plan.

2. Stakeholder Involvement Plan.

The contractor shall develop a Stakeholder Involvement Plan consistent with community relations activities specified in the RI/FS Guidance and "Community Relations in Superfund: A Handbook," U.S. EPA, Office of Emergency and Remedial Response, June 1988. This plan shall be prepared for EPA's use during the conduct of the Study. The contractor shall assist EPA in identifying key stakeholder groups, and in preparing for and conducting stakeholder interviews, including scheduling the interviews with EPA assistance as necessary. The objective of the interviews is to identify the needs and concerns of the community with regard to contamination, land uses, remediation and restoration, etc.; and to help identify potential contaminant pathways, and populations which may be exposed. The contractor shall prepare draft stakeholder interview questions for EPA review, and shall prepare final questions incorporating EPA comments. EPA will conduct the interviews in person or by telephone. EPA anticipates that approximately 15 such interviews will be conducted and that one contractor personnel will participate in each interview to record responses. The contractor shall prepare draft and final Stakeholder Involvement Plans as specified in the schedule of deliverables. The final plan shall be responsive to EPA's written comments on the draft plan.

3. Berry's Creek Study Scoping.

Prior to completing a draft Study Work Plan, the contractor will (1) compile and review existing information on the Study Area, and (2) conduct a maximum of two one-day site visits, each involving approximately three contractor personnel. These activities shall be conducted as necessary to gain an understanding of the Study Area sufficient for assessing data needs and developing the Study Work Plan. This should include a compilation and review of key existing data and information, and a thorough identification of all data sources and resources available through various government agencies, academic researchers, responsible parties at hazardous waste sites and other contaminated sites, and other institutions. Data types of relevance for the Study shall include those noted below. Specific data sources include, but are not limited to: EPA; the New Jersey Department of Environmental Protection; the New Jersey Meadowlands Commission (NJMC); New Jersey Office of State Planning; New Jersey Maritime Commission; U.S. Army Corps of Engineers; National Oceanic and Atmospheric Administration; Contaminant Assessment and Reduction Program; Meadowlands Environmental Research Institute; Rutgers University; Remedial Investigations for the Ventron/Velsicol, Universal Oil Products, and Scientific Chemical Processing Superfund Sites; investigations of other contaminated sites such as Diamond Shamrock/Henkel; and investigations conducted for the Passaic River Study Area. The contractor shall use the information to develop a detailed preliminary conceptual site model for the Study Area, and to plan for further data compilation activities to be conducted in the initial phase of the Study. The conceptual site model will be incorporated in the Study Work Plan and used to define specific project scope.

4. QAPP Scoping.

The contractor shall incorporate plans for the development of the QAPP into the Study Work Plan. Berry's Creek Study Scoping (Task 3, above) should define potential Applicable or Relevant and Appropriate Requirements (ARARs) for the Study Area, develop a revised list of contaminants of potential concern, define other Study parameters, and preliminary Data Quality Objectives. This information shall be used by the party(ies) performing the Study to define appropriate analytical methods and develop the QAPP. All Quality Assurance tasks performed in developing and conducting the Berry's Creek Study Work Plan will be in accordance with EPA Region 2 QA policies, guidelines, Standard Operating Procedures, etc. The most recent guidance and requirements can be found at:

<http://www.epa.gov/region02/desa/hsw/sops.htm>

5. Data Management Plan.

The contractor shall incorporate a plan for development of an electronic data management system for the Study into the Study Work Plan. The system should be based on a secure server, such that validated Study data, and data generated by third parties that are of use in the Study, are accessible in electronic form to designated representatives of the party(ies) performing the Study, EPA, Natural Resource Trustees, and others as determined by EPA. The data management system should be compatible with GIS, FIELDS/EQuIS, CARP data base, and data base being planned or developed by EPA for the Passaic River Study Area. A regular schedule of data submission is necessary for data types being used by EPA for development of the modeling framework.

6. Site Characterization.

The contractor shall incorporate a plan for the characterization of the Study Area environment, through appropriate field (i.e. Field Sampling Plan) and laboratory investigations, into the Study Work Plan. The characterization shall support the baseline risk assessment, environmental modeling, and the evaluation of remedial alternatives. It is expected that field activities will be planned to occur over approximately a 36-month period. This shall include an Initial Field Investigation Phase to be completed within approximately the first 12 months, including the submittal of a summary report evaluating the investigations. The purpose of the Initial Field Investigation Phase includes: (1) To test and refine data collection and analysis techniques; (2) to demonstrate that adequate validated data of all types can be delivered; (3) to characterize temporal and spatial variability in chemical, physical and biological parameters; and (4) to support the development of preliminary contaminant mass balances. The completion of this phase shall serve as a decision point for refinement and revision of the Study Work Plan and Environmental Modeling Plan. Revision of these plans is expected to occur within three months following the completion of the initial field investigation evaluation report. The Study Work Plan developed in response to this SOW shall thus include a specific plan for the Initial Field Investigation Phase, and a rough plan and scoping for the duration of the Remedial Investigation which should include a description of objectives, schedules, and estimates of the effort required,

and numbers of samples of various types expected to be necessary to achieve the objectives of the investigation.

A principal objective of site characterization shall be the identification, delineation and evaluation of discrete areas of high levels of contamination ("hot spots"), that may serve as source areas for contaminant migration. EPA may consider addressing such areas on a priority basis if potential risks to human health or the environment are several orders of magnitude greater than the risks posed by other parts of the Study Area, or if the preliminary data indicate that early attention could minimize the contamination of comparatively less contaminated areas; and significant recontamination would not occur.

Site characterization should address, but is not necessarily limited to, the following:

- a. Characterization of the physical, chemical, hydrological, hydrographical, meteorological, and geological characteristics of the Study Area, including relevant historical information. The purpose is to determine factors influencing contaminant transport and fate (e.g., including sediment transport and deposition), and exchange with adjacent uplands and water bodies; as well as factors and processes that influence contaminant bioavailability, including chemical factors such as redox, SEM/AVS, total organic carbon, etc.
- b. Lateral and vertical delineation of contamination in the sediments and wetland soils (surficial and cores), including segmented core analysis with determination of sediment accretion rates (e.g. cesium dating); and determination of contaminant concentrations in interstitial waters; surface water; groundwater; soil and buried waste materials.
- c. Determination of contaminant concentrations in tissues of biota present within the Study Area, which should include but is not limited to fish and crustacea that may be consumed by humans; other predatory fish; prey fish; and other receptor organisms representative of food webs found in wetlands, tidal creeks, and terrestrial habitats within the Study Area (e.g. benthic organisms, birds, mammals, and wetland vegetation).
- d. Determination of contaminant concentrations and loads entering the Study Area from external sources, including atmosphere, groundwater, non-point source runoff, and point sources, as well as contaminant fluxes among media within the Study Area.
- e. Ecological investigations at the Study Area designed to provide baseline data and characterize risks to biota from contamination at the Study Area. Such investigations should include but are not limited to habitat characterization; endangered species analysis; avian and terrestrial wildlife survey; benthic invertebrate and fish community surveys (composition and abundance); sediment toxicity testing; and bioaccumulation studies/testing (in-situ and/or ex-situ).
- f. Evaluation of mercury speciation and net mercury methylation rates (methylation and demethylation) in sediments and wetland soils, as well as mercury flux out of sediments

and wetland soils. This may include field-based measurements and estimates, or laboratory microcosm studies.

- g. Characterization of current and historic Study Area geography, land use, infrastructure, wetlands management and reclamation records, landfill records (with emphasis on identifying pollution sources and drainage patterns); and cultural and historic resources. The characterization should include an examination of historic commercial and industrial facilities and land uses, including the period of industrial development over the past century; as well as current land use plans and projects of the NJMC and other local authorities in the Berry's Creek watershed, such as existing redevelopment projects (e.g. Paterson Plank Road Brownfields Pilot Project); solid waste landfill closure/development plans such as the En-Cap Berry's Creek golf resort; remediation plans for hazardous waste and other contaminated sites; wetland and other natural area preservation and restoration plans; parks, recreation, and open spaces.

7. Environmental Modeling Framework.

EPA expects to develop, under a separate work assignment, an environmental modeling framework (i.e., a system of interconnected models and sub-models, each representing a different facet of the Study Area ecosystem) for this Study. The contractor will incorporate a plan for development of the environmental modeling framework necessary to address the Study Area, into the Study Work Plan. EPA anticipates conducting the modeling work, and that another party or parties will perform the Site Characterization and other Study tasks. Since the modeling and data collection components of the Study must be mutually supportive, the Study Work Plan will encompass these activities in separate modules that will describe how the activities are to be integrated.

Much of the modeling work will proceed in parallel with Site Characterization and other Study tasks. The party(ies) performing the Site Characterization and other Study tasks will be responsible for collecting Study Area data necessary for model calibration and development of contaminant mass balances. EPA will provide the party(ies) opportunity to participate in the development of the environmental modeling framework for the Study Area.

The modeling framework will be used to predict contaminant concentrations in water, sediments, and representative biota via bioaccumulation, in the Study Area, under a range of scenarios which will address physical forcing functions, contaminant loadings, and remedial alternatives. However, since recent data characterizing the Study Area are limited or absent, EPA expects to determine what modeling will be performed for the Study after completion of the Initial Field Investigation Phase, including development of preliminary contaminant mass balances. Because it is difficult to model mercury transformation and bioaccumulation processes, EPA will take an iterative approach to including these processes in the modeling framework.

In order to focus field investigations on the parameters and processes expected to be necessary for modeling, the Study Work Plan will describe a preliminary modeling framework for the Study Area, including an evaluation of critical data and model development needs, the modeling

tools available, and modeling approaches (such as "nested" approaches to address boundary conditions). As noted above, models for the New York-New Jersey Harbor Estuary that are being used and/or developed under the CARP are expected to be applicable for the Berry's Creek Study. EPA thus expects to base the development of the Berry's Creek modeling framework on these models.

Upon completion of the environmental modeling framework, the source codes and data input decks for any sub-models pertaining to Berry's Creek will be made available to EPA and the party(ies) performing the Site Characterization and other Study Tasks. The contractor will incorporate provisions for this into the Study Work Plan.

8. Baseline Risk Assessment.

The contractor shall incorporate plans to develop a Baseline Human Health Risk Assessment (BHHRA) and a Baseline Ecological Risk Assessment (BERA) into the Study Work Plan. The BHHRA shall identify and characterize all actual and potential cancer risks and non-cancer hazards due to contamination associated with the Study Area, consistent with CERCLA, the NCP, and EPA guidance, including, but not limited to the RI/FS Guidance, "Land Use in the CERCLA Remedy Selection Process" (OSWER Directive No. 9355.7-04) and the definitions and provisions of "Risk Assessment Guidance for Superfund ("RAGS")," Volume 1, "Human Health Evaluation Manual," (December 1989) (EPA/540/1-89/002), and other applicable EPA guidance. The BERA shall identify and characterize actual and potential ecological risks due to contamination associated with the Study Area consistent with CERCLA, the NCP, and EPA guidance, including, but not limited to, "Ecological Risk Assessment Guidance for Superfund, Process for Designing and Conducting Ecological Risk Assessments," ("ERAGS")(1997) (EPA/540-R-97-006), dated June 5, 1997.

The BERA shall describe available information on existing, planned and potential future land uses, such as parkland, nature preserves, and recreational and commercial development; and the associated ecological values. The BERA shall evaluate ecological risks under various land use scenarios.

9. Candidate Technologies, Treatability Studies and Development and Screening of Remedial Alternatives.

The contractor shall incorporate plans for the identification of candidate technologies, treatability studies and development and screening of remedial alternatives into the Study Work Plan, consistent with the RI/FS Guidance. The evaluation of remedial alternatives shall consider future land use options, which is a local prerogative. This information will be used to prepare a FS Report. The Study Work Plan should include an initial scoping of these efforts, such as identifying and categorizing remedial and treatment technologies and waste management options, and identifying sources of information, for the contaminated media expected to be addressed in the Study Area, and identifying local land use authorities, plans, projects, and initiatives.

10. Berry's Creek Study Work Plan.

The contractor shall prepare a Work Plan for the Study in accordance with this SOW, including the schedule of deliverables below. The contractor will submit a draft Study Work Plan for review by EPA and others as determined by EPA. The contractor will prepare a revised draft Work Plan in accordance with EPA's comments on the draft Work Plan. The revised draft Work Plan will be submitted to EPA for transmittal to Morton, and others as determined by EPA. The contractor will prepare a final Work Plan in consideration of all comments received as directed by EPA.

11. Berry's Creek Study Schedule.

The contractor shall incorporate a detailed schedule for completion of the Berry's Creek Study into the Study Work Plan. It is anticipated that the Study will be completed within four years after initiation.

12. Berry's Creek Study Cost Estimate.

Using reasonable assumptions about the cost rates for labor, materials, supplies, etc., required to conduct the Study, the contractor shall prepare a rough cost estimate for the Study. The estimate shall be used for project planning purposes. The estimate should identify anticipated major costs, and a cost schedule. The cost estimate shall be submitted as an addendum to the Study Work Plan deliverables.

13. Scoping Meetings.

The contractor shall attend project scoping meetings with EPA and others as determined by EPA, as described in this SOW. The purposes of the meetings shall include (1) presentation and review of the Study Work Plan under development, and (2) discussion and resolution of related issues, such as coordination with on-going studies of relevance to the Berry's Creek Study. The contractor shall prepare materials for presentation at these meetings as necessary to achieve meeting objectives, as directed by EPA. The scoping meetings will be located in New York City and/or Bergen County, New Jersey. The contractor will schedule the meetings, with EPA's assistance as necessary. EPA anticipates that approximately four contractor personnel will attend each meeting. The contractor shall prepare minutes of each scoping meeting for review by EPA, which shall include a summary of input received, and the contractor's understanding of all agreements reached and any issues requiring resolution.

14. Progress Report Meeting.

The contractor shall be available to meet with EPA and Morton at mid-term of performance of the work described in this SOW, or at such other time as mutually determined by EPA and Morton, to describe progress and discuss issues that may arise with regard to the development of the Study Work Plan.

15. Mailing List and Contact Information.

The contractor shall compile and submit contact information (including mailing list, phone numbers, e-mail addresses, etc.) for all parties contacted in preparation of the Berry's Creek Study Work Plan, including developing the Stakeholder Involvement Plan (Task 2) and Study Scoping (Task 3). The mailing list and contact information shall be submitted in electronic form in a format suitable for generating mailing labels and mass mailings.

Schedule of Deliverables

The contractor shall submit monthly technical progress reports, and financial reports, in accordance with the requirements of the contract.

The contractor shall submit all deliverables specified below in hard copy, in their native electronic format (e.g. MS Word, MS Excel), and in Adobe Portable Document Format (PDF); unless otherwise specified in this SOW or not applicable. Nine hard copies of all deliverables which are bound or contain color graphics or oversize pages shall be included. EPA will provide Morton with a copy of all final deliverables, and draft deliverables on which Morton will have an opportunity to comment, as noted below.

Initial Scoping Meeting (within 2 weeks of start of work).

Draft Technical Assistance Work Plan (within 3 weeks of start of work).

Minutes of Initial Scoping Meeting (within 2 weeks after the meeting).

Draft Final Technical Assistance Work Plan (within 6 weeks of start of work). Morton will have a period of two weeks in which to submit comments to EPA on this deliverable.

Final Technical Assistance Work Plan (as requested by EPA).

Scoping Meetings (4 anticipated, one of which is to include technical experts designated by Morton) (within 3 months of start of work, and thereafter as determined by EPA).

Minutes of Scoping Meetings (within 2 weeks after each meeting).

Draft Stakeholder Interview Questions (within 7 weeks of start of work). Morton will have a period of ten calendar days in which to submit comments to EPA on this deliverable.

Final Stakeholder Interview Questions (within 10 weeks of start of work).

Stakeholder Interviews (approximately 15) (within 4 months of start of work).

Draft Berry's Creek Study Work Plan (within 4 months of start of work).

Progress Report Meeting with Morton International, Inc. (approximately 4 months after start of work).

Draft Stakeholder Involvement Plan (within 5 months of start of work).

Revised Draft Berry's Creek Study Work Plan (within 6 months of start of work). Morton will have a period of four weeks in which to submit comments to EPA on this deliverable.

Final Stakeholder Involvement Plan (within 8 months of start of work).

Mailing List and Contact Information (within 8 months of start of work).

Final Berry's Creek Study Work Plan (within 8 months of start of work).

Project Manager

The EPA Project Manager shall be Mr. Seth Ausubel, Remedial Project Manager, Central New Jersey Remediation Section, EPA Region 2. Mr. Ausubel can be reached at (212) 637-4976.

ATTACHMENT A

Berry's Creek Study Area Preliminary List of Contaminants of Potential Concern

EPA has determined that the following contaminants are "hazardous substances" as defined in section 101(14) of CERCLA, 42 U.S.C. §9601(14), or constitute "any pollutant or contaminant" that may present an imminent and substantial danger to public health or welfare under section 104(a)(1) of CERCLA. The contaminants have been detected in soil, sediment, groundwater and/or surface water at the Berry's Creek Study Area, and/or have been identified as contaminants of potential concern, as documented in the reports referenced at the end of this section.

The list constitutes a preliminary identification of hazardous substances that may be associated with the Berry's Creek Study Area *and* facilities contiguous with or located near the Berry's Creek Study Area (i.e. "nearby sites"), that have or may have contributed contamination to the Berry's Creek Study Area. The list does not constitute a final determination as to the presence of particular substances at particular sites, that particular sites have contributed particular substances to the Berry's Creek Study Area, or that any substance poses unacceptable risks to human health or the environment at the Berry's Creek Study Area; nor does the list necessarily identify all hazardous substances that may pose unacceptable risks at the Berry's Creek Study Area. Such determinations will be made by EPA based on the Berry's Creek Study Area remedial investigation.

acenaphthene	copper
acenaphthylene	cyanide
anthracene	dibenz(a,h)anthracene
aluminum	dichlorobenzene
antimony	1,2-dichloroethene
arsenic	di-n-butyl phthalate
benz(a)anthracene	1,2-dichlorobenzene
benzene	1,2-dichloroethane
benzo(a)pyrene	dieldrin
benzo(b)fluoranthene	di-n-octyl phthalate
benzo(g,h,i)perylene	ethylbenzene
benzo(k)fluoranthene	fluoranthene
bis(2-ethylhexyl)phthalate	fluorene
butyl benzyl phthalate	hexachlorobenzene
cadmium	indeno(1,2,3-cd)pyrene
chlorinated dibenzo-p-	lead
dioxins	manganese
chlorinated dibenzofurans	mercury
chlorobenzene	methylene chloride
chloroform	methyl ethyl ketone
chromium	methyl mercury
chrysene	2-methylnaphthalene

naphthalene
nickel
pentachlorophenol
petroleum hydrocarbons
phenanthrene
phenol
polychlorinated biphenyls
pyrene
selenium
silver

1,1,2,2-tetrachloroethane
tetrachloroethylene
thallium
toluene
1,2-trans dichloroethylene
1,1,1-trichloroethane
trichloroethylene
vinyl chloride
xylene
zinc

REFERENCES

1. Task I - Berry's Creek Study. Nature of the Problem. New Jersey Department of Environmental Protection and Energy, November 1985.
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